



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/707,958

01/28/2004

Phillip L. Fuson

014607.000005

1957

62616

7590

01/18/2007

MOORE AND VAN ALLEN PLLC FOR BOEING

430 DAVIS DRIVE

SUITE 500

MORRISVILLE, NC 27560

EXAMINER

HEINRICH, SAMUEL M

ART UNIT

PAPER NUMBER

1725

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/707,958

Applicant(s)

FUSON, PHILLIP L.

Examiner

Samuel M. Heinrich

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 7, 10-12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,770,844 to Morita in view of USPN 5,841,089 to Martinenas and USPN 6,380,505 to Stoops et al. Morita shows (Figure 7) laser apparatus comprising plural energy beams disposable relative to a single work piece. Martinenas and Stoops et al show welding apparatus with work piece housings comprising first and second parts which are pivotably coupled. The use of plural energy beams in a pivotably coupled housing would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because plural beams provides rapid application of energy to a work piece and the pivotably coupled housings for tubular work pieces are very well known in the tube welding art. Martinenas and Stoops et al show work piece support fixture elements. Martinenas shows a housing which forms a seal around the work. Stoops et al show, e.g., Figure 5, a first and second operating lever which hold the housing in position. Morita discloses fiber optic cable.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,770,844 to Morita in view of USPN 5,841,089 to Martinenas and USPN 6,380,505 to Stoops et al as applied to claim 1 above, and further in view of USPN

Art Unit: 1725

3,622,743 to Muncheryan. Muncheryan shows a lens and describes a switching device and the use of either lens or switch would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because they provide known controlled delivery of energy.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,770,844 to Morita in view of USPN 5,841,089 to Martinenas and USPN 6,380,505 to Stoops et al as applied to claim 1 above, and further in view of USPN 4,953,292 to Tobey. Tobey shows first tooling supported by a first housing and second tooling supported by a second housing wherein the first and second housings couple together. Arrangement of first and second laser elements into first and second housings would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because Tobey shows arrayed tooling in first and second housing parts.

Claims 8 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,770,844 to Morita in view of USPN 5,841,089 to Martinenas and USPN 6,380,505 to Stoops et al as applied to claim 1 above, and further in view of JP356047756A. Centering pins are well known as described by JP356047756A and the use thereof in an annular pipe clamp would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because pins provide efficient work support for centering piping.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,770,844 to Morita in view of USPN 5,841,089 to Martinenas and USPN

Art Unit: 1725

6,380,505 to Stoops et al as applied to claim 7 above, and further in view of USPN 5,869,801 to Paton et al. Adaptation of tooling for operation in space is well known as disclosed by Paton et al and application thereof to the instant claimed device to process material would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because transport of parts and assembly in space provides efficient construction.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

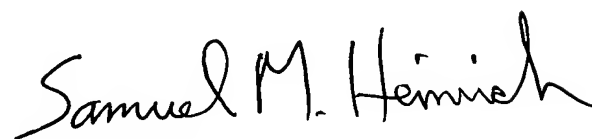
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink that reads "Samuel M. Heinrich". The signature is written in a cursive style with a large, stylized 'S' and 'H'.

Samuel M Heinrich  
Primary Examiner  
Art Unit 1725

SMH